

Bacon (J. G.)

ON THE
MEDICINAL CHARACTER
OF
Hathorn Spring Water

THE DISEASES IN WHICH IT IS USEFUL
AND THE METHOD OF USING
THE SAME

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MINERAL WATERS.

“If they have exerted chemical influence upon the products of excretion, it has been very transient. In fact they have an action—a *vital* action, which is more powerful than any chemical action, and, which once set in motion, continues for a much longer period. Therapeutical action does not admit of chemical explanation,—it is essentially *vital*;—or, if you prefer the expression,—essentially physiological.”—*Prof. Trousseau on the use of Mineral Waters*. Vol. II, Page 392-3, New Ed.

HATHORN SPRING.

Thus speaks the eminent medical teacher in his classical and valuable clinical work, as regards the use of mineral waters in the treatment of disease,—a sentiment based on observation, and sustained by results undeniable within the experience of hundreds of prominent medical men, both at home and abroad, as well as that of intelligent lay persons.

Our aim in presenting this little treatise is simply to point out the use, effect, and method of drinking mineral waters, to those, the nature of whose disease is amenable to cure and benefit through mineral water, drawing from our experience as a resident physician of ten years, and the experience of the older members of the profession, whose success in the prescribing appropriately these waters was remarkable,—though dead, they have left many valuable suggestions on record for the benefit of others. In dealing with this sub-

ject we shall limit ourselves to the medicinal use and effect of the *Celebrated Hathorn Spring Water*, and the diseases in the cure and treatment of which it has, since its discovery, been so successful. This Spring was discovered in the late fall of 1868, from which time it has progressively grown in favor as a medicinal water, of efficient power in the cure and alleviation of diseases of a certain class, known among medical men as functional derangements of the digestive system. This Spring may be classed among the Alkaline-Saline waters.

THE ORIGIN OF MINERAL SPRINGS.

The origin of springs and their uses has been a question of much difference of opinion among the savants of the past ; and their solution of the causes and effects they produced, as grotesque to our mind as the vagaries of the old astrologists.

CHARACTER OF PURE WATER.

Water, pure and simple, we know to be one of the most powerful solvents in nature, and as a remedial agent in the hands of the experienced physician, a powerful adjuvant in the treatment of disease. No rock too hard to resist its disintegrating powers ; no barrier made by man or nature can stay its course and solvent powers ; every portion of our earth is permeated by it ; the granite, so solid, gives way to its power, and through it it will creep ; no mountain so dense in flinty hardness, but is soaked by its solvent power, and thus recognizing this natural fact of the solvent power of this agent. The origin of *mineral springs* of various chemical constituents, all over the Earth, and markedly in Saratoga Springs, is easily and satisfactorily explained: cropping out here and there, and pouring forth—

like the pool of Bethesda—healing for man's ills. Among the places celebrated for these mineral waters or spring formation, Saratoga Springs stands pre-eminent in America. It is the great “watering place of America” *par excellence*, recognized, abroad as well as at home, as fulfilling the highest expectation in the treatment of disease. In considering the uses and effects of mineral water in the treatment of disease, more especially of a chronic character, we do not intend, in this little treatise, to enter into a discussion of the various theories of its formation in the “bowels of the earth;” we leave that to the geologist and deliver in science; sufficient is it for us and for those whom this article is intended, to glean from experience how it ought to be used, and in what class of cases its use is beneficial and curative, and this discussion of the matter we limit to the use of Hathorn Spring Water.

Mineral waters are commonly classed as follows: *First*, Alkaline; *second*, Sulphur; *third*, Ferruginous (Iron); which classification will be found simple, and covers the special features of all the springs of our village.

CHEMICAL CHARACTERISTICS.

We find that a chemical examination of the mineral constituents of the mineral springs of our town, will not explain their total effect on the system in the treatment of disease as Trousseau justly remarks: “Their action is *vital*, and beyond the ken of the chemist, be he ever so keen in his analysis.” By this assertion we do not intend to ignore the value of chemical analysis in determining the nature and chemical composition of mineral water, for the future may prove the skill and discoveries of the chemist to be the key to explain fully all the effects of mineral water on the system.

The careful analyses made from time to time by

competent hands, are within the reach of all to study the same.

We here ask the attention of the reader to the analysis of the Hathorn Spring Water, the one particularly under consideration.

ANALYSIS OF THE HATHORN SPRING:

Chloride of sodium,	. . .	509.968	grains.
Chloride of potassium,	. . .	9.597	"
Bromide of sodium . . .	. . .	1.534	"
Iodide of sodium,	. . .	.198	"
Fluoride of calcium,	. . .	a trace.	
Bicarbonate of lithia,	. . .	11.447	"
Bicarbonate of soda,	. . .	4.288	"
Bicarbonate of magnesia,	. . .	176.463	"
Bicarbonate of lime,	. . .	170.646	"
Bicarbonate of strontia,	. . .	a trace.	
Bicarbonate of baryta,	. . .	1.737	"
Bicarbonate of iron,	. . .	1.128	"
Phosphate of soda . . .	. . .	.006	"
Biborate of soda,	. . .	a trace.	
Alumina,	. . .	.131	"
Silica,	. . .	1.260	"
Organic matter,	. . .	a trace.	

Total solid contents, . . . 888.403

Carbonic acid gas in 1 gallon, 375.747 inches. Density, 1.009.

A noticeable feature of this spring is the large quantities of chloride of sodium and magnesia it contains, as well as carbonic acid gas, and which makes the Hathorn Water so valuable in the treatment of that class of diseases referred to.

MEDICAL REMARKS.

In the history of many chronic functional complaints, there occurs a period when the disease seems to be at a stand-still, or quiescent in its manifestations to the patient; gout, and its con-

gener—rheumatism, are examples of this observation ; and when, after a severe attack, the victim *seems* to be free from any taint of the complaint, this is the period we have found to be the best for a course of this spring water. There is, of course, exceptions to this rule, and when the use of this water is demanded during the sensible progress of disease, if no acute or feverish condition exists.

In presenting the claims of the Hathorn Spring Water to the profession at large, and the public who are too prone to indulge in the use of mineral water without their physician's advice, and, as we have often found, to their prejudice and harm, (a little knowledge is a dangerous thing, applies to the use and abuse of spring water as fully as to ethics or other matters of life,) we do so, backed by our own experience as a medical man, that of the older resident physicians of our village, who, through a long experience, used and advised their use in appropriate cases of disease, (these elder toilers now sleep with their fathers, but have left some gleanings of their experience behind for instruction,) as well as the opinion of eminent physicians abroad. We refer the reader to the estimates of professional as well as competent lay-people as to the medicinal virtues of this spring water, to be found on page 26.

THE HATHORN WATER.

In calling the attention of the Faculty to the use of Hathorn Water, in the limited class of functional disease to which it is adapted, and which we have tried to give in detail, we flatter ourselves we are fulfilling a professional duty,—that is, what-soever the true physician, either through his experience or invention, finds to be a real benefit to his kind, it becomes an obligation to give that experience to the world for its good.

We claim for the *Hathorn Spring Water* properties of great value, which have been tested, by experience, and not found wanting, producing as

much success in the treatment of visceral disease as could or can be desired by the most sanguine, or by the use of any foreign water. The recent discovery of this spring presents it as one containing the medicinal properties fresher, stronger and inexhausted, therefore more potent in its effect on the system.

USE OF HATHORN WATER IN FUNCTIONAL DISEASES OF THE GENERAL DIGESTIVE SYSTEM
—CLASS OF CASES BENEFITED BY ITS USE.

When the system has fallen into a depressed and enfeebled condition, either through the neglect or ignorance of the commonly known laws of health,—as an illustration, allowing the bowels to become constipated, breathing impure air, personal neglect and fear of water, or the absorption of poisonous exhalations which spend their venom on the secretory or glandular system, as, the liver and kidneys,—in this condition the use of this spring water has proved successful.

FUNCTION OF LIVER.

There exists in the lay, as well as professional mind, a vague and unsatisfactory opinion as to what constitutes Functional disease of the Liver, and in the treatment of which Hathorn Spring Water is a valuable adjunct. A “liver out of order” is an every-day expression; or, “I am bilious;” and few medical men have undertaken to define, with accuracy, what symptoms are referable to a liver out of joint.

It is the belief that the sole function of the liver is the secretion of bile; but the physiological investigations of the last thirty years have shown that the secretion and excretion of bile far from being the most important functions, are the least important of its functions. The splendid re-

searches of Claude Bernard, and others, (among which we proudly number our own Flint,) have unravelled the mysterious working of this important organ, and explained its use and function in the process of digestion and assimilation; "and many observations point to the conclusion that the liver is not only a *blood-forming*, but a blood-destroying organ," (vide Murchison on Livers,) and that the liver is largely concerned in the formation of nitrogenous matters which are cast out by the kidneys; for we find among the most important signs of functional disease of the liver, the imperfect formation of urea, as shown by the deposit of lithic acid or lithates in the urine, the "brick dust" of common experience.

FIRST.—When a large portion of the liver is destroyed by disease, we find the secretion of urea suspended or greatly decreased; this fact is proved by clinical investigations made by close observers, and moreover we find in blood poisoning from jaundice, and when cerebral symptoms occur in a protracted course of jaundice these symptoms are not owing (as has been commonly taught, and even now believed by some) to the circulation of bile through the blood system, but rather to this element known among physicians as urea, not being eliminated from the body; and we find it conclusively proven by experimental researches that large quantities of urea exists in the liver and is formed there. (Vide Murchison on liver, page 46.) All observation points to the fact of the liver being largely engaged in the destructive changes of albuminous material, the products of which are eliminated by the kidneys, although it is not improbable that other glandular organs may be engaged in the same process, and the circulating globules of the blood likewise engaged in the process, and we find that in the process of destruction, or, as it is sometimes denominated, oxydizing process, as well as those associated with the generation of bile, are accompanied by the production of heat; the average heat of the body, in

health, is between 98° and 99° Fahrenheit; the temperature of the healthy liver reaches as high as 104° , and according to Claude Bernard, 106° . Thus has modern physiological investigation and experiment proved the sagacious statement of Galen, propounded to the world centuries ago, that the liver is the great center of animal heat.

THIRD.—The third office of the liver is the secretion of bile. Its composition is complex, and all its uses not definitely determined; its appearance is familiar to not only medical men, but the laymen, so that it is unnecessary to enlarge upon its chemical constitution. We will only refer to our physiological authorities on the subject for detailed statements, especially referring to Frerichs and Dr. Austin Flint, Jr., on "*A New Function of the Liver.*" Bile is constantly being secreted by the liver, and when we consider that the daily amount of bile secreted by the liver is nearly two pints, we can have some idea of the important office of this organ, and understand somewhat of the various discomforts occasioned by it when "out of gear." The amount of this bile is much increased after a meal, and attains its maximum quantity in about two hours after eating; fasting lessens the secretion of bile as well as organic diseases; the amount of this biliary secretion must vary daily in different persons, and according to the nature of their food, respiration and other states of system, we find nevertheless but a small part of this fluid thrown off by the bowels. The question naturally arises, what becomes of this large amount of bile? The accepted theory is that the secretion and re-absorption of bile is part of that circulation constantly going on between the blood and the contents of the bowel, the existence of which is much forgotten when dealing with the troubles of this organ and its secretions, and how many times this fluid circles through the system before being eliminated from the system by the kidneys and lungs we do not know; at the same time this circulation assists in the process of nutrition.

OFFICE OF BILE.

FIRST—Bile assists in absorbing fatty material: we know from experience that when the "gall duct" becomes obstructed in man, there is progressive loss of fat; again, bile is partly excretitious, a part being cast out by the bowel, serving as a depurator to the system, and enabling it to get rid of the waste from the blood and tissues.

SECOND—And again the secretion of bile serves as a stimulating agent to the bowels, and through its antiseptic powers preventing decomposition of the intestinal contents and the formation of gas.

With this slight glance at the function of the liver in health, we may understand somewhat its importance, both in health and disease. An organ subject to daily derangement above all the organs of the body, and in glancing at the varied derangements which befall this gland, we shall briefly name the functional troubles, organic disease not being at all amenable to radical treatment by this agent—mineral water; and we have

FIRST—Diseased nutrition, as is shown in an excess of fat, or its reverse extreme thinness. How this is produced we have not time to specify.

SECOND—Diseased elimination, or excretion, which condition is shown by excessive jaundice constipation, loss of appetite, "stupidity" of mind, heavy sleep and disposition to sleep at all times, headaches, pain over the liver region, foul tongue, brick dust deposits, "blue devils" in all forms and kinds—in a word, life becomes a burden, and the grasshopper is very irksome,—and for this condition we have the common definition, torpor of the liver—and for the cure of this condition we have the Hathorn Spring Water, whose judicious use we have found satisfactory and good.

THIRD—There exists another form of functional disorder of the liver, found most frequently about the middle period of life,—and that is a morbid state of the blood, called by writers, lithæmia,

which is simply explained as the production of insoluble lithic acid and lithates, instead of urea,—and persons whose health is usually excellent may be affected by this condition, especially after excessive eating; but when this condition is of daily occurrence, either through too much gorging or through some defective assimilative power, often to be found in the liver, we then find that organ easily deranged by the ordinary materials of diet; when this lithic acid and lithates are formed in excess and fail to be thrown out of the system by the proper channels, they must accumulate and create great disturbance in the body. Then we find patients paying more attention to the urinary deposits, finding that they are becoming dyspeptic; this condition we are most likely to find among “high livers,” who take little exercise of any kind, or are much engaged in mental work.

This condition is indicated by the following group of symptoms :

FIRST—A sense of weight and distention at “pit of stomach,” and over the locality of the liver.

SECOND—Flatulency of stomach and bowels.

THIRD—Heartburn and sour eructations.

FOURTH—A sense of uneasiness and oppression; pain or aching in the limbs; inclination to sleep after eating.

FIFTH—Coated tongue, pale and flabby; dented at the edges, wooly; bitter or metallic taste in the mouth when rising in the morning.

SIXTH—Appetite fickle, often good, often voracious, and nausea.

SEVENTH—Constipation, with diarrhoea alternating, and peculiar character of waste.

EIGHTH—Heart disturbance, palpitation, intermittent pulse, frontal headache, sick headache.

NINTH—Bad sleepers, vertigo, dimness of sight, general malaise, sallow skin, patches on face, or mothy.

RHEUMATISM.

This common disease of our climate is too well known to need any comments on the various forms it may assume, and its effects on the system tedious and perplexing; in treating we have found the Hathorn Water very valuable.

GOUT.

A disease of "good livers" is not a common disease among our people, and, when found, is mostly associated with a rheumatic condition, in the treatment of which we find alkaline water, like the Hathorn, very beneficial, especially in the chronic form, waters rich in chloride of sodium are indicated.

DIABETES MELLITUS.

All cases wherein we find sugar in the urine are not to be classed as true diabetes. Are mineral waters adapted to the treatment of this disease? We answer, yes; and we find the alkaline and calcium waters are to be depended on. We find great benefit derived from the use of the Hathorn Water in the convalescence from this condition, the chronic enlargement of the liver and spleen often subsiding and being relieved.

SCROFULA.

The use of mineral spring water in this hydra-headed disease is conceded by the best authorities to be of great value, and Durand-Fardel emphatically says: "Whenever we wish to remedy pro-

found and confirmed scrofulous affections, such as show the constitutional dyscrasia (taint) in the most unmistakable manner, it is to water strongly mineralized by chloride of sodium that we must resort;" and we certainly find this mineralized condition existing in the spring water under consideration,—*i. e.*, The Hathorn.

HYPOCHONDRIA,

or, as we call it, the "blues," when the result of glandular derangement, we find this water most serviceable in removing the cause which produced it—dyspepsia being the chief feature. Saline waters are the panacea for this condition.

CHRONIC LARYNGITIS.

or, as is commonly known as clergyman's sore throat, chronic catarrh of the throat, the best authorities are agreed that decided benefit results from the use of water rich in chloride of sodium, such as the *Hathorn Spring*.

FUNCTIONAL DISEASE OF THE STOMACH,

or dyspepsia. This complaint might be named the great national disease of Yankeedom, for among no other people do we find indigestion so commonly prevalent. It is a disease, or derangement, to call it mildly, particularly amenable to treatment with mineral water, and that with alkaline-saline properties. In all its form and manifestations, which are numerous, and known as—

FIRST—Acid dyspepsia.

SECOND—Flatulent dyspepsia.

THIRD—Nervous dyspepsia, a form which we have by personal experience proved to be readily ameliorated and cured by the use of water rich in salts of the nature found in the Hathorn Spring Water.

CHRONIC GASTRITIS,

or chronic inflammation or irritation of the stomach, frequently caused by the use of crude and poorly cooked food and the abuse of alcohol, is a form of dyspepsia which finds relief in the proper use of this water, when controlled by judicious medical advice.

NERVOUS DYSPEPSIA.

This term we apply to a form of chronic functional derangement of the stomach, caused by errors in diet, bad food and insufficiency of and improper variety, with the abuse of spirits. The symptoms that define this form are peculiar, and are apt to mislead the inexperienced medical man. While there exists no aversion to food and no local disturbance, as pain and uneasiness of stomach, and the bowels act daily, the patient takes on certain anomalous symptoms which are hardly to be expressed by words; such as *vertigo*, *muscular tremor*, a sense of impending dissolution, especially when in public assemblies, such as lecture room, churches, &c., which is alleviated by walking, there existing at the same time a sense that the muscular powers would never tire, being controlled by a peculiar nervous tension, sudden flushes to the head when reading or writing, sleep horribly disturbed, awakening by spasmodic jerks and much frightened; fear of going to sleep again, premature grayness of the hair occurring in some cases; sympathetic impression produced on the heart, such as palpitation, feeble, thready, soft pulse, flatulent distention of the stomach, irritability of temper, morose, gloomy, despondent, all things losing their charm for the sufferer, and life becomes a burden. This form of gastric derangement we believe to be the most pernicious and unbearable of all; a well defined pain would be a luxury—a headache even; but instead that indefinite sense of abject musing which halos the

once cheerful, laughing man or woman, whose bloom suddenly fades, and whose soul is filled with inexpressible misery, all is black with evil forebodings; frightened by a shadow, the strong man sees in every passing impression something to make him tremble like the veriest coward while he vainly tries to reason or bring his mind to bear strictly on the matter and to explain his condition. We have, perhaps, devoted more space to this form of derangement than would seem necessary, but our own personal experience, both as a patient and a medical man, have led us to be specific in describing this form of commonly called dyspepsia. We have treated several cases (aside from our own) of this form of disease, and the result of that experience is that cures have been most frequent, when the patient has, by the proper use of hygienic measures and the exclusive use of mineral water, rich in chlorides and salts of magnesia, so abundantly found in Hathorn, and which we have satisfactorily recommended.

ULCER OF STOMACH.

Niermeyer extols in this condition the proper use of mineral water, alkaline and rich in carbonates.

CARDIALGIA OR GASTRALGIA,

commonly called neuralgia of the stomach, a very painful affection of a nervous type, the person, when free from pain, feeling measurably well; even in this exceedingly painful disease we find the use of mineral water valuable during the intervals of pain.

CONSTIPATION,

a condition so common as to need no explanations as to causes or the best manner of relief; the

universal patent pill fails and adds to the conditions, and a large experience has proven to us, corroborated by that of veteran observers in the profession, that the judicious use of mineral water is the safest and best mode of correcting this condition or habit, and nothing more harmful than the indiscriminate use of "pills." In this condition we have found the use of the Hathorn Water, taken as directed, to be productive of the greatest relief and good; in fact, this general condition is the one for which we urge the use of this valuable agent on the profession.

HEMORRHOIDS, OR PILES,

resulting from a plethoric or engorged condition of liver, spleen, pancreas and portal circulation, generally is much benefited by the use of Hathorn Water, and often cured.

In all forms of chronic engorgement of the liver the Hathorn Water is curative, and Frerichs', a valuable authority on diseases of this organ, accords a prominent place to the use of mineral waters in the treatment, and we can assert that in the Hathorn Water we have as valuable an agent as the lauded springs of Kissingen, Hamburg, Marienbad and Carlsbad.

GALL STONES OR BILIARY CALCULI.

This condition is one frequently met in, and after the middle period of life; the passage of calculi from the gall bladder through the bile duct into the duodenum, often causes the most intense and inexpressible agony; the sight of a sufferer undergoing an attack of "gall stone," is one, even to the physician, hard to behold, and any agent which will cure or palliate this condition of misery demands our attention, and from observation, reading and personal experience, we find mineral water more surely curative than any

other boasted medicine. We might more fully verify our statement by a prominent case of this disease which we had under treatment here during the summer of 1874, when the combined use of Hathorn and Congress Water was used with great and satisfactory results, freeing the patient from his misery. And both at home and abroad the treatment generally advised and found most successful is three months at the "Springs."

JAUNDICE,

when not occasioned by organic disease, we find in the use of Hathorn Water all that is necessary to remove the trouble.

GRAVEL.

We find this common complaint cured or palliated by the use of this mineral spring, and in cases of renal calculi, we find the same good results from its use.

CATARRH OF BLADDER.

In this complaint of the aged, great and often permanent relief is afforded by the use of this spring water, the action of the water being carefully watched.

BRIGHT'S DISEASE.

We find no trustworthy evidence of the beneficial effect of mineral water in this disease.

SKIN DISEASES.

We find the use of this water, in certain forms of skin disease, a successful means of great relief, and often permanent cure. In such forms are,

viz: dry skin, itching, hearty eaters who have catarrhal trouble and stomach derangement, which is frequently the cause of certain forms of skin disease. The use of this water must be regular, and time allowed for its action, which is highly alterative.

REMARKS ON THE METHODS OF USING WATER.

The medicinal qualities of this Spring has already acquired for it a national reputation, both among medical men and the laity, and, without boasting, we prophesy for it a wider field of usefulness at home and abroad. Its active ingredients must make it a valuable agent in the treatment of the diseases indicated.

In drinking the water it is very certain that the mode and quantity to be taken will depend very much on each individual case, and the effect to be sought for. If, for its cathartic effects, its action must be prompt and effective, and in the matter of quantity to be taken for that effect, each person is a law unto him or herself. We have found that from two to three tumblerfuls is about an average quantity, and *always to be drunk from an hour to one-half before breakfast*, slowly, so that the temperature of the mouth will raise the temperature of the water before entering the stomach, thus avoiding the sense of chilliness so often complained of by delicate persons, when the water, the temperature of which is between 50° and 60°, is suddenly gulped down and astonishes the warm organ with a cold douche, provocative of distress for some time, or at least producing an uncomfortable distension, which slowly disappears. The quantity required to produce the effect desired must vary with different persons, and even the same person at different times will require different quantities; much must be left to the discretion of the one using this water, under the advice of his physician. As before stated,

from a pint to a pint and a half, taken on an empty stomach, and that *before* breakfast, is a safe custom to follow; for the average user of Hathorn Water a larger quantity than this we do not generally advise. In case of extreme constipation we emphatically advise the proper use of some cathartic medicine for a few nights. The purgative effect of the water is increased by the use of a desert spoonful of Rochelle Salts to each glass of the water, and this only in obstinate cases of torpidity. We would here warn persons, whose stomach and bowels have been for some time suffering from morbid excitement, and the whole body enervated,—weakened by the derangement of the assimilative functions of the same organs,—that an excessive use of *this* water is *inadmissible*, to use a mild term. The effect of distension, known as “bloating,” and the abstraction of heat, following large draughts of mineral water at 50°, upon a stomach enfeebled by disease, must be detrimental. “If a little does *good*, more must do greater *good*,” will not apply here.

ALTERATIVE EFFECTS.

The alterative character of this water is so pronounced and evident that a few words as to its use and manner of drinking is all that is required. From one-half to one tumbler of the water is all that is desirable, and that before dinner and tea, and perhaps on retiring, if the digestive process is well advanced; more than this is not generally desirable.

GENERAL RULE FOR DRINKING THE WATER.

The proper time, as we have stated, for using this water, is *before breakfast*, to be followed at the breakfast table by a cup of warm coffee, tea or chocolate, which enhances its cathartic effect, and it should not *be touched* during the day, as a *gen-*

eral thing. Here is where the mistake is made by many, the continued guzzling of the water, tending only to increase their malady; and nothing can be more absurd and hurtful to invalids than this ridiculous trotting from spring to spring to "get their money's worth," as the Yankee said when he ate through the whole bill of fare from soup to ice cream and raisins. The exercise, the morning air, and the sights to be seen at the springs have a happy effect on the victim of torpid liver, &c., &c., and one gets the sparkling carbonic gas, the effect of which is so grateful to the sufferer; for the time being, some of his physical woes are forgotten. A moderate walk in the sunshine between each glass of water is capital, and sipping, the best method of drinking. The low temperature of the water demands this mode of taking it in many cases, and in some cases of functional stomach trouble, it will be found beneficial to raise the temperature of the water, *i. e.* "take the chill off." A leaf from our own experience may not be inappropriate as an illustration of this last remark. From the use of poor and damaged food, as well as cooking, we contracted, while in the U. S. service, a severe attack of gastritis, or inflammation of stomach, which resulted in great emaciation, nervous prostration and exhaustion, inability to partake of only the simplest and plainest kinds of starchy food. Mental condition much influenced by reflex action, which condition existed for three years, being finally removed by the persistent use of Saratoga mineral water, and this before the discovery of the Hathorn Spring. The water was used winter and summer, but invariably at a higher temperature than it came from the spring; no chilliness was allowed to follow its use. Since the opening of the Hathorn Spring we have found smaller quantities of this water in similar cases, and under the same circumstances, productive of the greatest good.

ALTERATIVE EFFECTS OF HATHORN WATER.

All mineral waters produce alterative effects, which effects constitute their chief value. Does there exist any difference in this respect as regards the use of various springs? We emphatically answer, yes; their action may vary, and we claim for the *Hathorn Water*, in respect to its alterative action, a marked and decided effect.

In closing this paper on the use of the Hathorn Spring Water, we cannot do better than quote from Trousseau, that master mind of the medical world, whose calm, unbiased labor sought truth everywhere, and whose hand gleaned from every field whatever was good for the ills of humanity:

“Whatever may be said of them, mineral waters are not simple medicaments; whatever may be the predominant mineralizing agent as demonstrated by analysis, it acts not alone;” “under their salutary influence the appetite revives, the constitution is reorganized, patients affected with dropsy, with visceral engorgement, arrive at Plombières or at Bigorre in a deplorable state, and depart, after a single season, in a condition notably ameliorated, and are often cured in a manner altogether unexpected.”—*Chirique Médicale, form III, p. 58 and 59.* To the Hathorn Spring Water, we can justly apply these words.

TO THE MEDICAL PROFESSION.

In calling your attention to the medical qualities of the “Hathorn Spring Water,” we have attempted to outline its use in a large class of visceral disease. This is no clap-trap or secret nostrum, whose virtues are hid under a patent, backed by the certificates of pseudo ministers and others “whose sands of life have nearly run out,” it rushes from the bosom of mother-earth, free and pure, — and has been,—is daily being tested by hundreds of respectable physicians throughout

our land, and whose opinions might be attached to our little treatise as make-weights. The proprietor prefers that this water should be rigidly tested by the faculty, in those complaints above indicated, feeling assured that too much is not claimed for it.

Among the many hundreds of flattering professional opinions extended to the owner of the spring, referring solely to its valuable medicinal qualities: we give the following from Surgeon Gen'l J. K. Barnes, of the U. S. Army :

"Having made a very thorough trial of the water from the Hathorn Spring, I am convinced of its admirable medicinal properties, and its pleasant effects upon the system."

WASHINGTON, D. C , Feb. 26, 1876."

Also a flattering opinion from R. F. Michael, M. D., a leading and prominent physician of Montgomery, Ala.

MONTGOMERY, ALA.

This is to certify that I have used with great benefit the Hathorn Water, Saratoga, N. Y., in my practice.

Its cathartic and alterative properties are very superior, and we must say, that it has met the general recommendation of the medical gentlemen of the State.

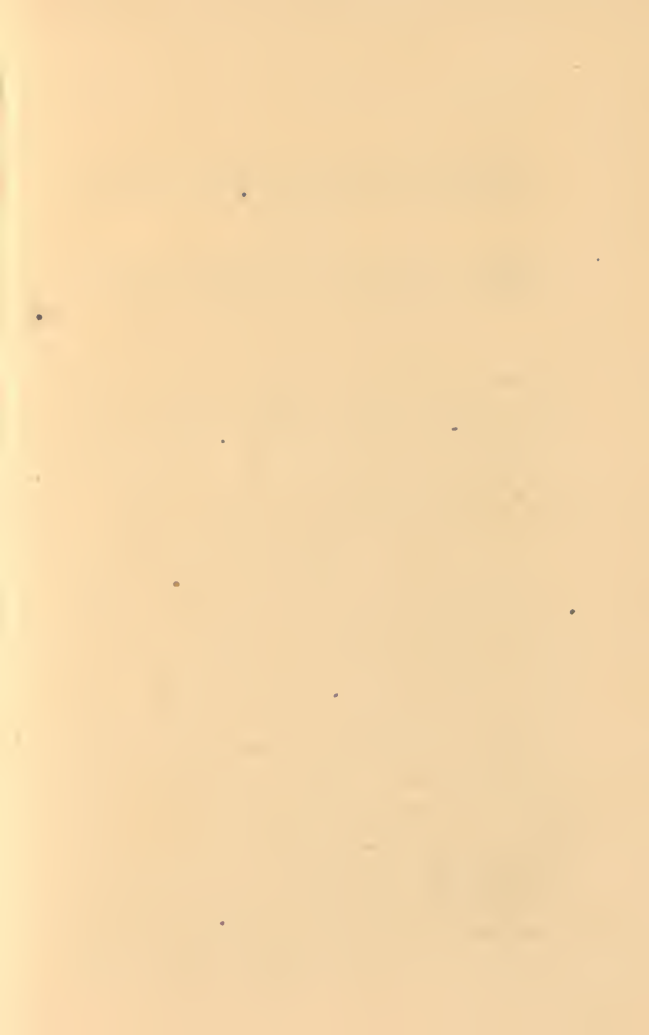
R. F. MICHAEL, M. D.,

President of the Medical Association of the State of Alabama.
President of the Medical and Surgical Society of Montgomery,
Alabama.

Finally it will be a pleasure to afford information to any member of the medical profession, relating to the use and class of complaints benefited by this water, which information is gleaned from the practical experience and expressed opinion of gentlemen of the medical profession, who have prescribed this agent in their practice and who yearly send patients here to drink it.

SARATOGA SPRINGS, N. Y., May, 1876.







(Reprinted from the Boston Medical and Surgical Journal,
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ON

HATHORN SPRING MINERAL WATER.

By S. A. FISK, M. D., of NORTHAMPTON.

Mineral waters are probably the most notable of all the remedial agents which have been used by man from a very early period; their curative powers have not only inspired his faith, but have also retained it to a considerable extent, and this, too, notwithstanding the medical profession of late years has seemed largely to overlook the real merits of these therapeutic agents.

While I have for many years regarded the waters of Saratoga Springs as an agreeable beverage and a pleasant evacuant, I have, in common with very many, if not with a large majority of the medical profession, looked upon those springs rather as a resort of the gay votaries of pleasure and fashion, than of those seeking benefit from medicinal waters. Such is undoubtedly the fact to a considerable degree; and to this is probably due the belief that whatever of renewed health and vigor may follow a visit to this renowned place is to be ascribed rather to the pure and stimulating air, to a relaxation and relief from the engrossments of business, to a temporary change of habits of life, and to the varied and

pleasurable excitements attendant upon a sojourn in the midst of scenes so diverting, than to the real remedial qualities of the mineral springs.

Admitting that these influences have a happy and beneficial effect upon the overworked, still there is a large class of invalids who resort there, not to be active participants in gay scenes, but to drink the waters, and who do find them health-giving and possessed of positive curative value. In such cases the invigorated health and renovated spirits cannot be ascribed simply to a change of air or to the relaxation which the social attractions and amusements of the place afford; for without the use of the water these results do not so surely follow, neither do they follow in so marked a degree.

Three years ago I visited Saratoga Springs with a different object in view and in a different condition than ever before; I went then as a seeker after health, and became an exceedingly interested and critical observer and investigator. For many months prior to that time I had become the subject of persistent insomnia. Sleep would visit my eyelids but for a brief period at a time; from thirty to sixty minutes was its average duration, to be succeeded by long intervals of wakefulness.

Accompanying this vigilance was the still more distressing malady of vertigo, from which I suffered often, and which at times confined me to my bed from two to eight days, then wearing gradually off, to be speedily followed by another attack, quite as disabling and prostrating as severe seasickness. A few hours of mental exertion, mental anxiety, or any fatigue that lowered the stand-

ard of my health at that time was sufficient to produce an attack of vertigo in its severer forms.

My stomach sympathized in the general derangement and was not, as might be supposed, a primary cause of the mischief. Anything and everything that I ate caused distress. The action of the heart was feeble, and a very decided dropsy of my legs now showed itself and became exceedingly troublesome, the œdema increasing persistently.

Moderate physical exercise overcame me. A ride of six or eight miles exhausted me, and with this there was not the slightest emaciation. I was the victim of great nervous prostration; a diagnosis which was confirmed by a number of my professional brethren, who after most thorough investigation were unable to discover organic disease. Having failed to get relief from remedies suggested from the pharmacopœia, I resorted in this condition to Saratoga Springs, not as before, for relaxation and enjoyment, but for the purpose of drinking the waters for their medicinal and remedial effects.

These waters, in the nomenclature of mineral springs, are known as alkaline-saline waters. Being highly charged with carbonic acid gas, they take up and hold in solution the alkaline carbonates and chloride of sodium principally; though some of the springs, in addition to these, hold carbonate of iron, carbonate of lithia, iodide of sodium, and other salts more or less in solution. The large amount of carbonic acid gas contained in these waters not only increases the solvent

powers of that menstruum, enabling it to take up and hold in solution a favorable combination of ingredients, but renders them very easy of digestion, and to most persons very agreeable to the taste.

Here, in these waters, but more especially in that from the Hathorn Spring, I found a remedy that seemed to meet the indications in my own case. These indications evidently were, to put the digestive organs into healthy action, to unload the plethoric visceral vessels, to stimulate the emunctories, and to so break up and change the acid and other secretions of the stomach that food might be digested and assimilated readily.

The Hathorn Spring, which was accidentally discovered in 1868, and which is already taking a leading place for its prompt and certain therapeutic properties, contained the combination of chemical agents that were indicated in the condition I was in at that time. In taste and general character this water resembles that of the celebrated Congress Spring; it is stronger, however, in some of its constituents, more prompt and certain in its action, and contains also a bicarbonate of lithia which renders its diuretic properties of great value.

The following is the

ANALYSIS OF THE HATHORN SPRING :

Chloride of sodium,	. . .	509.968	grains.
Chloride of potassium	. . .	9.597	"
Bromine of sodium,	. . .	1.534	"
Iodide of sodium,	. . .	.198	"
Flouride of calcium,	. . .	a trace.	

Bicarbonate of lithia,	. . .	11,447 grains.
Bicarbonate of soda,	. . .	4.288 "
Bicarbonate of magaesia,	. . .	176.463 "
Bicarbonate of lime,	. . .	170.646 "
Bicarbonate of strontia,	. . .	a trace.
Bicarbonate of baryta,	. . .	1.737 "
Bicarbonate of iron,	. . .	1.128 "
Phosphate of soda,	. . .	.006 "
Biborate of soda	. . .	a trace.
Alumina,	. . .	.131 "
Silica,	. . .	1.260 "
Organict,	. . .	a trace.
Total solid contents,		888.403

Carbonic acid gas in 1 gallon, 375.747 inches. Density, 1.009.

It will be observed that the quantity of salts contained in this water, excepting the chloride of sodium, is comparatively small. Its therapeutic action, however, when taken in the usual quantity is much greater than the small amount of the salts would produce if combined artificially. In its remote action it is, like other mineral waters, a powerful alterative when taken in moderate quantities, for a considerable time.

When an explanation of these facts is asked for, we can only quote in reply that calm and careful investigator and most brilliant practitioner of our day, the lamented Trousseau, who, writing of the peculiar therapeutic effect of mineral waters, says: "Whatever may be said of them, mineral waters are not simple medicaments; whatever may be the predominant mineralizing agent as demonstrated by analysis, it acts not alone. Nature, in combining with the more or

less notable elements which chemistry may isolate other exceedingly variable ingredients and principles which have not yet been discovered, has done for this mineralized agent that which we seek to imitate each day in our prescriptions when we endeavor to re-inforce or diminish the effects of a medicinal substance by associating others with it. In making due allowance for the particular phenomena which may result from the action of such or such elements which enter into the composition of a mineral water, we should not attribute to a single principle, however dominant it appears in the chemical analysis, all the properties of the water; and clinical experience only can permit us to judge. This is so exceedingly true that dyspepsias allied to a grave cachectic state (I do not now speak of paludal cachexia) are admirably modified by very different waters; by those waters in which the mineralizing principle escapes, so to speak, chemical analysis. . . . Plombieres and Bagneres-de-Bigorre, in the particular disease which occupies us, in virtue of an action which escapes us and which I know not how to explain, triumph over rebellious dyspepsias. Under their salutary influence the appetite revives, the constitution is reorganized; patients affected with dropsy, with visceral engorgement, arrive at Plombieres or at Bigorre in a deplorable state, and depart, after a single season, in a condition notably ameliorated, and are often cured in a manner altogether unexpected."

What Trousseau says of Plombieres, I am able, from a personal experience, to say of Hathorn

Spring water. Its therapeutie action is very prompt. When taken in the morning, it is agreeable to the taste, grateful to the stomach, and acts efficiently as an evacuant; and while it may, and in many cases does, induce full and copious dejections, they are not attended with pain; neither is languor nor debility experienced by the patient; but, on the contrary, a feeling of refreshment and invigoration. The immediate effect upon the digestive organs, whether impaired by disease or exhausted from any cause, is to increase their powers of assimilation and nutrition, the appetite being increased at once. That oppression which is often felt, that sense of fullness which was termed "abdominal plethora" by the old authors, that condition, in short, in which the liver, spleen, and mesentery are usually filled with blood, slowly moving, and when hæmorrhoids are troublesome, is quickly relieved by it. The abdominal circulation is increased and the engorgement of the blood vessels is diminished with a gratifying sense of relief.

To those affected with what has been supposed to be an engorged condition of the liver, characterized by a dusky complexion, a coated tongue, a pasty, bad taste in the mouth, a capricious appetite and sluggish action of the bowels, with a sense of fullness in the head and of mental dullness, this water proves most valuable. It seems to liquify the bile, causing it to flow freely, and gives increased action to the intestinal canal.

When taken more frequently and in smaller quantities than the cathartic dose, its effect upon

the kidneys is no less happy. Its action upon the renal secretions is prompt, uniform, and quite certain. A turbid, irritating urine is quickly cleared up by it; the ureters and bladder are soothed, and many cases of vesical catarrh are quite relieved by it.

In some of the cutaneous diseases, those more especially dependent upon an acid state of the secretions, these mineral waters are beneficial, both from their alkaline properties and from their depurative effects.

Such, in brief, are some of the therapeutic effects of the Hathorn Spring water, to the use of which I attribute the entire relief I have obtained from the uncomfortable symptoms detailed above. Sleep, quiet and refreshing, has returned to my pillow. The only consciousness I now have of a stomach, when it is kindly treated, is from its intimations of hunger; and the dropsy, which was troublesome for so long a time, and which suggested serious reflections, has disappeared; strength and a comfortable amount of endurance have supplanted a feeling of languor and of debility. The dyspeptic symptoms and the dropsy were speedily relieved by a short season at the springs; they returned, however, after a little time, but a continued use of the water for a few months brought about a permanent condition of health.

I have referred to my own case with so much of detail as it is illustrative of this subject, and because some of you are familiar with it, and to you I am under obligations for kind professional advice and assistance.

FOR SALE BY
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